



## Farming fit? Dispelling the Australian agrarian myth

**Author(s):** Brumby S, Chandrasekara A, McCoombe S, Kremer P, Lewandowski P  
**Year:** 2011  
**Journal:** BMC Research Notes. 4: 89

### Abstract:

**BACKGROUND:** Rural Australians face a higher mental health and lifestyle disease burden (obesity, diabetes and cardiovascular disease) than their urban counterparts. Our ongoing research reveals that the Australian farming community has even poorer physical and mental health outcomes than rural averages. In particular, farm men and women have high rates of overweightness, obesity, abdominal adiposity, high blood pressure and psychological distress when compared against Australian averages. Within our farming cohort we observed a significant association between psychological distress and obesity, abdominal adiposity and body fat percentage in the farming population. **PRESENTATION OF HYPOTHESIS:** This paper presents a hypothesis based on preliminary data obtained from an ongoing study that could potentially explain the complex correlation between obesity, psychological distress and physical activity among a farming population. We posit that spasmodic physical activity, changing farm practices and climate variability induce prolonged stress in farmers. This increases systemic cortisol that, in turn, promotes abdominal adiposity and weight gain. **TESTING THE HYPOTHESIS:** The hypothesis will be tested by anthropometric, biochemical and psychological analysis matched against systemic cortisol levels and the physical activity of the subjects. **IMPLICATIONS OF THE HYPOTHESIS TESTED:** Previous studies indicate that farming populations have elevated rates of psychological distress and high rates of suicide. Australian farmers have recently experienced challenging climatic conditions including prolonged drought, floods and cyclones. Through our interactions and through the media it is not uncommon for farmers to describe the effect of this long-term stress with feelings of 'defeat'. By gaining a greater understanding of the role cortisol and physical activity have on mental and physical health we may positively impact the current rates of psychological distress in farmers. **TRIAL REGISTRATION:** ACTRN12610000827033.

**Source:** <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3078090>

### Resource Description

#### Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience:

audience to whom the resource is directed

Public

# Climate Change and Human Health Literature Portal

## **Exposure :**

weather or climate related pathway by which climate change affects health

Extreme Weather Event

**Extreme Weather Event:** Drought, Flooding, Hurricanes/Cyclones

## **Geographic Feature:**

resource focuses on specific type of geography

Rural

## **Geographic Location:**

resource focuses on specific location

Non-United States

**Non-United States:** Australasia

## **Health Co-Benefit/Co-Harm (Adaption/Mitigation):**

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Diabetes/Obesity, Injury, Mental Health/Stress

**Mental Health Effect/Stress:** Stress Disorder

## **Intervention:**

strategy to prepare for or reduce the impact of climate change on health

A focus of content

## **Medical Community Engagement:**

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

**Population of Concern:** A focus of content

## **Population of Concern:**

populations at particular risk or vulnerability to climate change impacts

Workers

**Resource Type:** 

format or standard characteristic of resource

Research Article

**Timescale:** 

time period studied

Time Scale Unspecified

**Vulnerability/Impact Assessment:** 

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content